

526 Rec'd T/PTO 30 MAR 2000

-	FORM PTO-1: (REV 12-29-99		ATTORNEY'S DOCKET NUMBER		
ì		ANSMITTAL LETTER TO THE UNITED STATES]3455-		
		DESIGNATED/ELECTED OFFICE (DO/EO/US)	US. APPLICATION NO (IELENO, 1969)		
		CONCERNING A FILING UNDER 35 U.S.C. 371	U 97507075		
		TIONAL APPLICATION NO. INTERNATIONAL FILING DATE 30 September 1898 n	PRIORITY DATE CLAIMED 0] October]997		
	TITLE C	FINVENTION PHEROMONE COMPOSITION			
	APPLICA	NT(S) FOR DO/EO/US GEORGE HENRY DODD			
	Applican	herewith submits to the United States Designated/Elected Office (DO/EO/US) the follow	owing items and other information:		
-	1. X	This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.			
1	2.	This is a SECOND or SUBSEQUENT submission of items concerning a filing under			
	3. X	This express request to begin national examination procedures (35 U.S.C. 371(f)) at an examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) at A proper Demand for International Preliminary Examination was made by the 19th more	nd PCT Articles 22 and 39(1).		
	5. X	A copy of the International Application as filed (35 U.S.C. 371(c)(2))	min from the earnest clauned priority date.		
	٠- لـــا	a. \boxtimes is transmitted herewith (required only if not transmitted by the Intern	national Bureau).		
		b. As been transmitted by the International Bureau.	,		
	F1	c. is not required, as the application was filed in the United States Rece			
	6. X	A translation of the International Application into English (35 U.S.C. 371(c)(
	7.	Amendments to the claims of the International Application under PCT Article			
		a. X are transmitted herewith (required only if not transmitted by the Interest.) have been transmitted by the International Bureau.	mational Bureau).		
1		 b. X have been transmitted by the International Bureau. c. have not been made; however, the time limit for making such amenda 	ments has NOT expired		
		d. have not been made and will not be made.	mono nas rea expired.		
	8.	A translation of the amendments to the claims under PCT Article 19 (35 U.S.	C. 371(c)(3)).		
-	9. 🔲	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).			
	10. A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).				
	Items 1	1. to 16. below concern document(s) or information included:			
	11.	An Information Disclosure Statement under 37 CFR 1.97 and 1.98.			
	12.	An assignment document for recording. A separate cover sheet in compliance	with 37 CFR 3.28 and 3.31 is included.		
I	13. 🛮	A FIRST preliminary amendment.			
ı		A SECOND or SUBSEQUENT preliminary amendment.			
	14.	A substitute specification.			
	15.	A change of power of attorney and/or address letter.			
	16.	Other items or information:			
I					

430 Rec'd P / PTO 3 0 MAR 2000

J.S. APPLICATION NO (if lan	iown, see 37 CER 1.5)	INI	ERNATIONAL APPLICATION NO			ATTORNEY'S DOCKE	T NUMBER
J.S. APPLICATION NO (if land	5096		CT/GB98/0294]			13455	
17. The follo	nuing feet are	whmitted:			CA	LCULATIONS	PTO USE ONLY
BASIC NATIONA	Wing lees are s	R 1 492 (a)	(1) - (5)):				
Neither interna	ational prelimina	rv examina	tion fee (37 CFR 1.482)				
nor internation	nal search fee (3	7 CFR 1.44	5(a)(2)) paid to USPTO	¢070.00			1
and Internation	nal Search Repo	rt not prepa	red by the EPO or JPO \cdots	\$970.00			
USPTO but In	ternational Sear	ch Report p	(37 CFR 1.482) not paid to repared by the EPO or JPO.				
International p	reliminary exam earch fee (37 C	ination fee (FR 1.445(a)	37 CFR 1.482) not paid to U(2)) paid to USPTO	SPTO but \$690.00			
International p	oreliminary exar	nination fee	paid to USPTO (37 CFR 1. FPCT Article 33(1)-(4)	482) \$670.00			
International r	oreliminary exar	nination fee	paid to USPTO (37 CFR 1.	482)			
and all claims			Article 33(1)-(4) RIATE BASIC FEE A		\$	840.00	
					+	040.00	
Surcharge of \$130 months from the	.00 for furnishing earliest claimed	ng the oath priority dat	or declaration later than	20 30	\$	0	
CLAIMS	NUMBER I	FILED	NUMBER EXTRA	RATE			· · · · · · · · · · · · · · · · · · ·
Total claims	20	- 20 =	0	X \$18.00	\$	0	
Independent claims	1	- 3 =	0	X \$78.00	\$	ე	
MULTIPLE DEPE	ENDENT CLAIM	(S) (if applic	able)	+ \$260.00	\$	0	
			OF ABOVE CALCUL	ATIONS =	\$	840.00	
Reduction of 1/2	for filing by sm	all entity, if	applicable. A Small Entity S		\$	0	
must also by filed	1 (Note 37 CFR	1.9, 1.27, 1.		BTOTAL =	\$	840.00	
						0-10-00	
Processing fee of months from the	\$130.00 for fur earliest claimed	nishing the priority dat	English translation later thate (37 CFR 1.492(f)).	+	\$	0	
			TOTAL NATIO		\$	840.00	
Fee for recording accompanied by	the enclosed as	signment (3 over sheet (7 CFR 1.21(h)). The assign 37 CFR 3.28, 3.31). \$40.00	ment must be per property +	\$	0	
			TOTAL FEES EN			840.00	
					A	mount to be refunded:	\$
						charged:	\$
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NOTE: When 1.137(a) or (b)	re an appropria)) must be filed	ite time lim	it under 37 CFR 1.494 or led to restore the application	1.495 has not been n to pending statu	n met is.	, a petition to re	vive (37 CFR
SEND ALL CORRE	_					<u> </u>	
QUINN, Cha		c (1 - 1 -	τn	, SIGNA	TURE:		
Saul, Ewin		∝ saul l	.LT	C	har	les N. Quin	n, Esq.
	Centre Square West 1500 Market Street, 38th Floor NAME						
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Philadelphia, Pennsylvania [9]02-2]36 27,223 United States of America							
				REGIS	TRATIO	ON NUMBER	

09/509695 430 Rec'd PCT/PTO 30 MAR 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of George Henry Dodd

Group Art Unit: N/A

Serial No.:

Not yet assigned

Examiner: N/A

Filed:

March 30, 2000

Title:

Pheromone Composition

International Application No.:

PCT/GB98/02941

PRELIMINARY AMENDMENT

Assistant Commissioner for Trademarks Washington, D.C. 20231

Box PCT

Dear Sir:

Prior to submission of the inventor's oath and calculation of the surcharge please amend the claims of this application as follows:

	the claims of	тиз аррисанов	11 43 10110 W3.
	3.	(Amended)	A composition as claimed in claim 1 [any of claims or 2] wherein
~ 1			the carrier is an aliphatic alcohol or propylene glycol.
	4.	(Amended)	A composition as claimed in <u>claim 1</u> [any of the previous claims]
			wherein the composition comprises trimethylkamine hydrochloride
			and 5-alpha-androst-16-en-3- α -ol.
	5.	(Amended)	A composition as claimed in <u>claim 1</u> [any of the preceding claims]
			wherein the composition is a liquid
	6.	(Amended)	A composition as claimed in <u>claim 1</u> [any of the preceding claims]
			which is formulated for injection into bait.
	7.	(Amended)	A composition as claimed in claim 1 [any of claims 1-5] which is
			formulated as a spray.
	8.	(Amended)	Plastic bait including the composition as claimed in claim 1 [any of
			claims 1-5]
	9.	(Amended)	Dried ground bait including a composition as claimed in claim 1
an en		رون المعارض ال	[any of claims 1-4]

Please add the following additional claims:

- 10. A composition as claimed in claim 2 wherein the carrier is an aliphatic alcohol or propylene glycol.
- 11. A composition as claimed in claim 10 wherein the composition comprises trimethylkamine hydrochloride and 5-alpha-androst-16-en-3- α -ol.
 - 12. A composition as claimed in claim 11 wherein the composition is a liquid.
 - 13. A composition as claimed in claim 12 which is formulated for injection into bait.
 - 14. A composition as claimed in claim 12 which is formulated as a spray.
 - 15. Plastic bait including the composition as claimed in claim 12.
 - 16. Dried ground bait including a composition as claimed in claim 10.
 - 17. Dried ground bait including a composition as claimed in claim 11.
 - 18. Plastic bait including the composition as claimed in claim 11.
 - 19. Plastic bait including the composition as claimed in claim 10.
 - 20. Plastic bait including the composition as claimed in claim 2.

Subject to submission of the inventor's oath in payment of the surcharge applicant respectively solicits a prompt and thorough examination of all of the claims pending in the application.

Respectfully submitted,

SAUL, EWING, REMICK & SAUL LLP

By:

Charles N. Quinn, Esq. Registration No. 27,223 Attorney for Applicant

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PCT/GB98/02941

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09/509695

PHEROMONE COMPOSITION

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The invention relates to compositions formulated to attract fish, in order to capture them. More particularly the composition may be used in a liquid form to be applied onto or into bait, lures or flies which are used by anglers and commercial fishermen alike.

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Angling and fishing are sports which attract a large number of people. A wide range of bait, lures and flies are marketed at these persons in order to provide them with more success in catching fish.

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Some organic compounds are known to be active in the feeding response of some species by enhancing feeding or attracting fish to a general area. They are known to occur at low concentration levels in crustacea and also in a range of decomposing animals. Such compounds are small organic odorants.

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It has been reported that women have a greater success rate in catching salmon than male anglers (see Salmon and women, W. Paterson & P. Behan, published by H, F & G Witherby Ltd 1990).

1	It is an object of the invention to provide a
2	composition showing enhanced attracting effects on
3	fish.
4	
5	It is another object of the invention to provide a
6	method to attract fish by using the composition of the
7	invention.
8	
9	It is a further object of the invention to provide the
10	composition of the invention to be applied to bait
11	(live or dead), lures or flies (dry or wet) used in the
12	practise of angling or commercial fishing.
13	
14	It has surprisingly been found that compositions
15	containing at least one human female pheromone presents
16	an unexpectedly good attractive effect on fish, and
17	particularly on salmon. Such compositions may be
18	applied on any kind of bait used by anglers and
19	fishermen.
20	
21	Herein the term "pheromone" is taken to include amines
22	such as trimethylamine and pyrroline, and salts
23	thereof, steroids of the androstene family such as 5-
24	alpha-androst-16-en-3- α -ol, heterocyclic compounds
25	including nitrogen and/or sulphur such as indole and
26	skatole and alkanoic acid compounds such as 4-
27	methyloctanoic acid.
28	
29	The objects of the invention are achieved with a fish
30	attracting composition comprising at least one human
31	female pheromone, or a synthetic nature-similar version
32	of the latter.
33	
34	In one embodiment the invention provides at least one
35	female human pheromone together with an acceptable
36	carrier.

1	Alternatively the composition can	comprise a	synthetic
2	female pheromone with a carrier.	Preferably	the
3	carrier solubilises the compound.		
4			

5 Preferred carriers include aliphatic alcohols such as 6 ethanol, monoethylene glycol and propylene glycol.

7

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8 It is preferred that the pheromone used in the composition of the invention be at least trimethylamine 10 or one volatile steroid of the androstene family 11 together with at least one compound chosen from a complex array of alkanoic acids, including those having 12 13 a carbon atom number ranging from C4 to C5 and 14 especially substituted acids having a carbon atom 15 number ranging from C8 to C10.

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A particularly preferred composition comprises at least one salt of trimethylamine (typically the hydrochloride) and 5-alpha-androst-16-en-3- α -ol.

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A preferred composition according to the invention may comprise in association with nature-similar versions of human female pheromones, a suite of other potent aroma chemicals (referred to herein as Key Impact Odorants [KIOs]) which occur in both fresh and decomposing animal tisue.

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These other KIOs can be special amines and associated heterocyclic compounds including nitrogen and sulphur such as indole and skatole. It is also preferred that the odorant compounds be provided with concentrations of several order of magnitude higher than the ones which are found in conventional bait.

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35 The composition of the invention can be used in various 36 embodiments.

1	In one embodiment the composition is a liquid which
2	bait, lure, fly, ground bait and/or hooks can be dipped
3	into or the liquid can be poured onto the bait, lure,
4	fly, ground bait and/or hooks.
5	
6	The composition of the invention may also be formulated
7	as a spray to allow easy manipulation by the users and
8	could either be hand pumped or gas driven.
9	
10	In a preferred embodiment the composition is formulated
11	to be injected into bait.
12	
13	Alternatively the composition can be incorporated into
14	plastic bait.
15	
16	To attract fish one may apply the composition of the
17	invention on a bait or a suitable support and provide
18	it in area where fish are used to be found.
19	
20	The composition may also be applied directly onto bare
21	hooks.
22	
23	The composition of the invention can be formulated for
24	a wide range of applications including combining with
25	floatant, spraying flies, combining with greasing or
26	degreasing agents to enable bait to float or sink as
27	required.
28	
29	The formulation can also be combined with ground bait
30	and dried for storage purposes.
31	
32	Formulations of the present invention are surprisingly
33	effective in aqueous solution. Whereas a preferred
34	carrier is ethanol and a basic formulation can include
35	a salt of trimethylamine in ethanol, in use the

formulation produces trimethylamine on contact with

	J The state of the
1	water. In fishing, the formulation will be vastly
2	diluted in water and therefore it is most surprising
3	that use of the formulation can effectively enhance
4	fishing.
5	
6	The pheromones which may be advantageously used in a
7	composition according to the invention include the
8	following:
9	
LO	Trimethylamine (TMA) (as derived from a salt of
11	trimethylamine such as the hydrochloride) is an
L2	exceptionally interesting KIO pheromone. It occurs on
١3	human skin and is especially important for females. It
L4	is the characteristic odour of a menstruating female.
15	The odour profile is distinctive and is not shared by
16	closely related amines such as, for example,
L7	dimethylamine. The aroma is that of fresh shell fish
L 8	at the threshold level. In fact it is thought that
.9	most of the charm of oyster, scallops and the like
20	comes from TMA. The aroma changes with increasing
21	concentration and becomes increasingly unpleasant. At
22	a high level TMA will be perceived as an off-odour in
23	shell fish and the like, and as a sign of lack of
24	hygiene in a human subject.
25	
26	The threshold concentration for humans is about 1ppb (1
27	part in 10^9) - this is low by olfactory standards.
28	There is, in fact, great individual variability and the
29	concentration varies around the mean figure by about 3
30	orders of magnitude. This gives rise to great
31	variability; for example, a crustacean may appear
32	delightful to a person of high threshold but may be
33	abhorrent to a person of low threshold (skin
34	sensitivity). See in that matter "Ageing and the Sense
15	of Smell" C Wan Toller CH Dodd & A Billing Charles T

Thomas, Publisher, Springfield, Illinois, USA, 1985.

1	Another interesting pheromone to be used in the fish-
2	attracting composition is 1-Pyrroline. This is a rare
3	and little studied human pheromone. It is unstable and
4	therefore very difficult to study. It is formed by
5	oxidation of precursor molecules such as 1,4-
6	diaminobutane and 1,4-diaminopentane. These amines
7	occur in a variety of human tissues, and can be formed
8	from appropriate amino acids.
9	
10	In order to overcome the instability problem when 1-
11	Pyrroline is to be used in a fish-attracting
12	composition of the invention, the parent amines (i.e.
13	the above mentioned precursors) are incorporated at a
14	high level in the composition. They will slowly
15	oxidize and release the unstable active odorant.
16	
17	These parent amines are also called respectively,
L8	putrescine and cadaverine, for obvious olfactory
19	reasons and occurred in decomposing animal tissue. The
20	human threshold is in the ppb range.
21	
22	A further preferred pheromone is the 5-alpha-androst-
23	16-en-3- α -ol. This pheromone is a well-known pheromone
24	which is found in both males and females but is thought
25	to be more important for women (in contrast to the
26	related steroid pheromone, alpha-androstenone). The
27	threshold for human is in the low ppb range. The odour
8 8	is usually described as musky.
29	
30	A still further preferred pheromone is 4-Methyloctanoic

30 A

A still further preferred pheromone is 4-Methyloctanoic acid which is characteristic of the scalp odour and may be found in gamey meat. The threshold is unusually low for a fatty acid and is in the region of ppb. It is has been reported that women are much more sensitive to this odorant than men.

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A particular composition according to the invention has 1 2 been tested in fishing experiments on the River Ness, other rivers in the Highlands, and in Ireland and on a 3 variety of Lochs. Positive results have been obtained. 4 5 6 The composition of this particular non-limiting 7 composition is the following: 8 Amount Required for 9 Component No Name 1000 litres of 10 solvent (ethanol) 11 12 Trimethylamine 7kg 13 1 hydrochloride 14 1,4 diaminobutane 15 2 0.7kg 16 3 1,4 diaminopentane 0.1kg 17 4 indole 50 grm 18 5 skatole 40 grm 19 6 isovaleric acid 40 grm 20 7 4-methyloctanoic acid 10 grm 21 8 4-methylnonanoic acid 5 grm 22 phenylacetic acid 9 20 grm 23 10 2-methyl-E-butenoic acid 5 grm 24 11 4-methylpentanoic acid 10 grm 25 12 2-methyl-2-pentenoic acid 10 grm 26 13 $5-alpha-androst-16-en-3-\alpha-ol$ 60 mg-6g 27 28 A more general preferred composition comprises 29 30 Amount Required for Component No Name 1000 litres of 31 32 solvent 33 34 1 KIO Pheromone 0.05 - 50 kg35 2 Alkanoic acid 5g-1.5kg 36 3 Amines 0.1kg-8kg

1	Even if a special emphasis has been given on the
2	utility of the composition in order to ease fishing it
3	is understood that the composition to attract fish as
4	above described may be used for other purposes. For
5	example it may be used to attract salmon into special
6	paths provided in order to help them to cross dams,
7	waterfalls or other obstructions.

Experimental Study

An initial study was carried out to establish a relationship between the use of female pheremones at a chosen concentration and the increase in the catch of salmon, either by fish size or numbers caught using the conventional rod and line method with a selected range of hand tied salmon flies.

Three specialist salmon fly fishermen were chosen who regularly fished prime salmon rivers, have extensive combined specialist knowledge gained from 20 years of fly fishing, fish a regular pattern over the entire season, have experience of observing changes and variations in fish runs and catch methods and were willing to comply with strict rules with regard to reporting procedures.

27 Rivers chosen for the study covered the entire salmon 28 cycle, i.e Spring-Summer and Autumn salmon runs, 29 January-September 1997.

Results

33 Some interesting findings came to light at the season end:

1	Of the three subjects chosen, all had a significant
2	change in their catch pattern, (1) 43 salmon caught (2)
3	75 salmon caught (3) 15 salmon caught.
4	
5	Subjects (1) and (2) fly fished the middle/upper
6	reaches of a major salmon river. The river is world

8 Spring salmon run (10-251bs) is moderate. Large runs

famous for the range of salmon fishing available.

9 of Summer grilse (3-8 lbs) and a good run of Autumn

10 salmon (10-30 lbs).

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Subject (3) fly fished a major East Coast spring salmon fishery (10-30 lbs) This river has small runs of summer salmon owing to licensed commercial fishing in estuary waters.

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In all cases the reports returned were similar with more consistent catches particulary when fish were in holding pools (when water levels receded after floods).

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Catch summary (Salmon caught)

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23	Subject	1996	1997
24	(1)	37	75
25	(2)	18	43
26	(3)	9	15

27

No exceptional fish size was reported over that of the 1996 season.

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Water levels for 1997 were consistently high by comparison to 1996 resulting in concentration of several salmon runs in holding pools throughout the entire river system.

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36 Current information on official commercial salmon catch

ventures for 1997 would indicate a 20% reduction on the

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2	1996 season.
3	
4	Water temperatures were slightly higher than previous
5	years.
6	
7	Most salmon for this study were caught on an imitation
8	shrimp fly dressing of various sizes.
9	
10	All subjects chosen for this study were male with
11	average age of 45 years.
12	
13	All subjects chosen tie their own flies, however,
14	similar selected shrimp/prawn flies were distributed to
15	all.
16	
17	Salmon flies used were purchased from local fishing
18	tackle shops.
19	
20	The final results of this initial trial study would
21	indicate some relationship between the choice of fly
22	with sample female pheromone and the traditional fly
23	fishing method.
24	
25	One fisherman has fished for Sea Bass (commonly known
26	as Salmon Bass) off the east coast for many years, with
27	varying success. This specialist fishing activity
28	fished off chosen rocky points in July/August would
29	normally yield 1-2 fish per outing. This year, using
30	identical fishing lures, substantially improved bass
31	catches were recorded with better than average sizes
32	using the female pheromone formulation described
33	herein. Other specialist bass anglers fishing the same

waters did not use the formulation and did not return

above average catches.

1	CLAIMS
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1. A fish attracting composition comprising at least one human female pheromone, or a synthetic nature-similar version thereof wherein the pheromone is at least one volatile steroid of the androstene family and the composition further comprises at least one compound chosen from a complex array of alkanoic acids.

2. A composition as claimed in claim 1 further comprising an acceptable carrier.

3. A composition as claimed in any of claims 1 or 2 wherein the carrier is an aliphatic alcohol or propylene glycol.

4. A composition as claimed in any of the previous claims wherein the composition comprises trimethylamine hydrochloride and 5- alpha-androst-16-en-3- α -ol.

23 5. A composition as claimed in any of the preceding claims wherein the composition is a liquid.

26 6. A composition as claimed in any of the preceding claims which is formulated for injection into bait.

7. A composition as claimed in any of claims 1-5
 which is formulated as a spray.

33 8. Plastic bait including the composition as claimed in any of claims 1-5.

9. Dried ground bait including a composition as
 claimed in any of claims 1-4.



COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL, CONTINUATION, OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is for a national stage of PCT application.

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

PHEROMONE COMPOSITION

SPECIFICATION IDENTIFICATION

The specification was filed on March 30, 2000, as Serial No. 09/509,695.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, Section 1.56.

PRIORITY CLAIM (35 U.S.C. Section 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

Such applications have been filed as follows.

536312.1 6/19/00

PRIOR PCT APPLICATION(S) FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. SECTION 119(a)-(d)

INDICATE IF PCT	APPLICATION NUMBER	DATE OF FILING DAY, MONTH, YEAR	PRIORITY CLAIMED UNDER 35 USC 119
PCT	PCT/GB98/02941	30 September 1998	yes

POWER OF ATTORNEY

I hereby appoint the following practitioner(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

APPOINTED PRACTITIONER(S)

REGISTRATION NUMBER(S)

Charles N. Quinn

27,223

I hereby appoint the practitioner(s) associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

SEND CORRESPONDENCE TO

DIRECT TELEPHONE CALLS TO:

Charles N. Quinn 215-972-1965

Charles N. Quinn
Centre Square West
1500 Market Street, 38th Floor
Philadelphia, PA 19102

536312.1 6/19/00

E PLENIEL E MANAGEMENT P

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

George Henry Dodd Inventor's signature Date 8-200 Country of Count	Had Cl Citizenship United Kingdom
Residence	· ·
Fost Office Address	
TIGH-NA-FOIS MELLON CHARLES	P. 0 @
LOCH EWE	
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536312.1 6/19/00

Practitioner's Docket No. 013455.00009



PATENT

#6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Dodd, George Henry

Application No.:

09/509,695

Filed on:

Title:

March 30, 2000 Pheromone Composition

STATEMENT CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(b)—SMALL BUSINESS CONCERN

I hereby state that I am an official of the small business concern empowered to act on behalf of the concern identified below:

Kiotach Limited 22 Melton Street London NWI 2BW United Kingdom

I hereby state that the above identified small business concern qualifies as a small business concern, as defined in 13 CFR 121.12, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees to the United States Patent and Trademark Office under Sections 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third-party or parties controls or has the power to control both.

I hereby state that rights under contract or law have been conveyed to, and remain with, the small business concern identified above, with regard to the invention described in the application identified above.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c), if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

No such person, concern, or organization exists.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 CFR 1.28(b))

536343.1 6/19/00

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed...

Otolof Minister

Signature

Title RXD Director - Kiotell

Date 08-68-2800

22 Melton Street London NWI 2BW United Kingdom

United States Patent & Trademark Office

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